Abstract ID : 645

Title : Experimental studies of manatee entanglement in crab traps

Category : Conservation

Student : Not Applicable

Preferred Format : Poster Presentation

Abstract : To study mechanisms of entanglement, rehabilitated and captive-born male and female manatees at SeaWorld of California and Florida were exposed to crab traps with experimental float lines. Several types of float lines were tested, including unmodified ¼-in polypropylene rope, polypropylene rope with a hose sheath, plastic-coated steel cable, and calf rope. Tests consisted of half an hour of baseline observations and half an hour of exposure to test objects. Data collected included (1) counts of wraps in test line, entanglements, and interactions with test objects; (2) location in the test pool; (3) social interactions; and (4) feeding behavior. SeaWorld Animal Care staff were present during all trials to release entangled manatees. All the manatees manipulated test objects, in some cases for up to 90% of the trial. They mouthed the line, wrapped it around flippers and paddle, and rolled in it. Cumulatively, 40 trials with stiffened line were conducted and no manatees were entangled. Four entanglements occurred in 18 trials with unmodified rope. The stiffened lines were significantly less likely to entangle manatees (Yates-corrected $C2 = 5.05$, $p < 0.0246$). Of the stiffened lines tested, calf rope was the closest to line already in use by fishers. Field trials with this line are in the planning stages. If an economically-feasible method for stiffening crab pot lines can be identified, fishers and state regulators may be able to negotiate an effective solution to entanglements in crabbing gear. [Funded by U.S. Fish and Wildlife Service, Jacksonville, Hubbs-SeaWorld Research Institute, and Florida Marine Research Institute]